

REMARKS/ARGUMENTS

Election/Restriction

Applicant acknowledges receipt of a restriction requirement under 35 U.S.C. 121 and 372 as set forth in the Office Action dated March 26, 2008.

Species of FIG. 2 (Claims 2 to 3) is provisionally elected from the March 26, 2008, restriction requirement. The election is made without traverse. The claims encompassing the elected species are Claims 1 to 3 and 6 to 17.

Claims 3 and 4 are withdrawn from further consideration. However, upon allowance of a generic claim, Claim 1, Applicant requests consideration of Claims 3 and 4 which represent additional species which depend from generic Claim 1.

Claim Discrepancy Between PCT and USPTO

The amended claims as listed herein starting on page 2 reflect the amendments made October 28, 2004, during the PCT phase. However, the USPTO appears to have received only the original claims from the United States Receiving Office. Applicant was unable to contact Examiner Lynn Duncan regarding this discrepancy. On June 19, 2008, a message was left for her supervisor, Examiner Rick Crispino, asking for a return call and a clarification. Applicant missed Examiner Crispino's return call the next day. Examiner Crispino left a message that he would be on vacation until June 30, 2008, and that Examiner Phil Tucker would be covering for him. Applicant called Examiner Tucker June 20, 2008, left a message and Examiner Tucker returned the call the same day. Examiner Tucker explained that the original claims is what the USPTO received.

The PCT file shows that Applicant filed a demand with claim amendments in response to the written opinion and received the IPER with the amended claim pages, which indicated that they were accepted by WIPO. The amended claims should have been transmitted to the USRO and then to the USPTO with the application. Apparently they were not.

In view of this situation, Applicant now (re)submits the amendments previously entered in the PCT and respectfully requests that the next office action consider the amendments and arguments as if it were the original office action and, in the case that the Examiner maintains her position, that the next office action not be final. Alternatively, should the Examiner have another suggestion as to how to rectify this error and have the correct amended claims of record, Applicant would be very appreciative of any such suggestion.

Amendments to the Claims

Basis for limiting the fiber material in Claim 1 to a continuous fiber material is found in original Claims 13 and 14, in the specification on page 2, line 31, in the Example starting on page 16, and in FIG. 1 step 4. No new matter is added.

Claims 4 and 5 are withdrawn in compliance with the Examiner's election of species requirement.

Claim 13 is amended to reflect that the reinforcing fiber is only continuous as now required in amended Claim 1. No new matter is added.

Original Claim 14 is deleted.

Claim Rejections

The Examiner has rejected Claims 1, 6 and 9 to 13 under 35 U.S.C. 102(b) as being anticipated by Betso (US 5,576,374). Betso discloses a thermoplastic polymer composition comprising a thermoplastic polymer, at least one substantially linear ethylene polymer and/or a linear ethylene polymer, and a filler, methods to prepare said compositions, and methods to mold articles therefrom. As amended, Applicant claims a method of making a fiber-reinforced thermoplastic article in a process including the steps of extruding a molten, fiber-reinforced thermoplastic polymer composition comprising a thermoplastic polymer, a masterbatch comprising an elastomer, and continuous fiber and forming a fabricated article therefrom.

The objective of the present invention is to provide a single process which combines melt blending a thermoplastic polymer, a masterbatch comprising an elastomer, and continuous fiber and fabricating a fiber-reinforced thermoplastic

article. Such a process is hitherto unknown. The present invention provides a method of online adjustment of fiber-reinforcement and elastomer levels and is more efficient and cost effective than previously known multi process approaches used to fabricate fiber-reinforced thermoplastic articles.

Betso discloses (col. 9, lines 31-37) all of the ingredients comprising his impact-modified filled thermoplastic composition are dry blended together prior to melt mixing (regardless of how the ingredients are melt mixed and/or formed into a fabricated article). Contrary to the Examiner's statement (page 4, last paragraph), Betso does not teach or suggest Applicant's (1) masterbatch comprising an elastomer. Further, Betso does not teach or suggest Applicant's (2) continuous reinforcing fiber.

The Examiner incorrectly summarizes Betso's method (page 4, last paragraph) indicating that the filler is introduced to the molten polymer because the dry blend would be plasticated before the filler is introduced. This is incorrect. The filler is part of the dry blend. Betso does not teach or suggest a separate stream wherein a filler is added to the melt mixed thermoplastic polymer.

Contrasting Betso's method, Applicant's masterbatch and continuous reinforcing fiber are added independently of the thermoplastic polymer. In other words, Applicant's present invention comprises at least three independent component sources introduced to the melt blending apparatus (thermoplastic polymer, masterbatch comprising an elastomer, and continuous reinforcing fiber) whereas Betso's method(s) introduces a single dry blend of components to the melt mixing apparatus. Applicant's method allows for online changes in (1) the amount of elastomer and/or (2) the amount of continuous reinforcing fiber, none of the methods described in Betso can do this.

Betso's composition is an impact-modified filled thermoplastic composition. Regarding the filler, the bulk of the teaching, all the examples, and the claims that specify a specific filler all disclose a particulate filler, generally talc. Betso does mention "glass fibers" in a secondary, or less preferred, laundry list of fillers referred to as "other miscellaneous fillers" (col. 6, line 13). However, one skilled in the art would understand these to be chopped glass fibers and not the continuous reinforcing fiber of the Applicant's invention. One skilled in the art would recognize that it would be impossible to reproduce Betso's method of dry blending the components of his impact-modified filled thermoplastic composition prior to melt mixing with a

continuous (glass) fiber, if glass fibers were to be used, to dry blend them, they would need to be chopped glass fibers.

To be novelty destroying, a single prior art reference must disclose the invention as claimed in amended Claim 1 of the present patent application. Betso fails to meet this requirement. Betso does not teach or disclose the required masterbatch comprising an elastomer nor does it teach or disclose the use of a continuous reinforcing fiber. Further, Betso teaches away from both of these required elements by its requirement of dry blending the components prior to melt mixing. Applicant asserts that amended Claim 1 is novel and patentable in view of Betso.

Because Betso is not a valid novelty destroying prior art reference regarding independent amended Claim 1 the Examiner's argument regarding dependent Claims 6, 9, 10, 11, and 12 are moot. Applicant asserts that dependent Claims 6, 9, 10, 11, and 12 are novel and patentable in view of Betso.

Amended Claim 13 limits the reinforcing fiber to a continuous reinforcing fiber. Examiner's point raised in the rejection of original Claim 13 (e.g., continuous versus chopped fibers) has been addressed hereinabove, Applicant restates that Betso does not teach or suggest continuous reinforcing fibers. Moreover, continuous reinforcing fibers could not be used in Betso's compounding method presented therein (col. 9, lines 31 to 52). Applicant asserts that dependent amended Claim 13 is novel and patentable in view of Betso.

The Examiner has rejected Claim 8 under 35 U.S.C. 102(b) as being anticipated by Betso as evidenced by Kale et al. (US 5,773,155). The Examiner is using Kale to demonstrate that the substantially linear ethylene polymer used in the present invention is an elastomer. It is well known to one skilled in the art that substantially linear ethylene polymers are elastomers. However, as discussed hereinabove, Betso is not a valid novelty destroying prior art reference regarding independent amended Claim 1, regardless of the teachings of Kale, therefore the Examiner's argument regarding dependent Claims 8 is moot. Applicant asserts that dependent Claim 8 is novel and patentable in view of Betso as evidenced by Kale.

The Examiner has rejected original Claim 16 under 35 U.S.C. 102(b) as being anticipated by Betso as evidenced by Roys et al. (WO 99/64241). It is well known to one skilled in the art that a facia is an automotive part. However, as discussed hereinabove, Betso is not a valid novelty destroying prior art reference regarding

independent amended Claim 1, regardless of the teachings of Roys, therefore the Examiner's argument regarding dependent original Claims 16 is moot. Applicant asserts that dependent original Claim 16 is novel and patentable in view of Betso as evidenced by Roys.

The Examiner has rejected Claims 2, 3, 7, 14, and 15 under 35 U.S.C. 103(a) as being unpatentable over Betso in view of Sargent (US 5,401,154). As discussed hereinabove, Betso discloses a thermoplastic polymer composition comprising a thermoplastic polymer, at least one substantially linear ethylene polymer and/or a linear ethylene polymer, and a filler, methods to prepare said compositions, and methods to mold articles therefrom. Sargent discloses an apparatus for making fiber reinforced thermoplastic material having a first material inlet for the thermoplastic resin, a second material inlet for the fiber reinforcing material and optionally a third material inlet for a second fiber reinforcing material (Claims 1 and 10 and Figure 1). There is no mention of an elastomer masterbatch or an additional (fourth) inlet for additional resinous components.

Regarding original Claim 2, Sargent teaches the use of a single thermoplastic resin in the disclosed process. Sargent does not teach or suggest a mechanism in the apparatus to accommodate an additional resinous component, the use of an additional resin component, or specifically, Applicant's masterbatch comprising an elastomer. Moreover, Sargent does not hint at or suggest a need for a product with improved impact properties. However, Applicant asserts if it did (which it does not) or if one skilled in the art starting from Sargent wanted an article with improved impact properties one could not arrive at the present invention by combining Sargent with Betso because Betso is also silent as to the use of a masterbatch comprising an elastomer.

Neither Betso or Sargent disclose (1) the use of a masterbatch comprising an elastomer or (2) a method/apparatus to add such a masterbatch to make the fiber reinforced thermoplastic polymer composition of the present invention. One skilled in the art could not combine Betso and Sargent to arrive at the present invention as claimed in the amended claims. Applicant asserts that the present invention as claimed in original Claim 2, depending from amended Claim 1, is unobvious and patentable over Betso in view of Sargent.

Regarding Applicant's present invention as claimed in original Claim 3, which is directed to the use of a compression mold, original Claim 7, which is directed to a single or twin screw extruder, original Claim 14, which is directed to a continuous reinforcing fiber, and original Claim 15, which is directed to a plurality of continuous glass fibers, Applicant asserts that the present invention as claimed in original Claims 3, 7, 14, and 15 all depending from amended Claim 1, are unobvious and patentable over Betso in view of Sargent based on the arguments presented hereinabove.

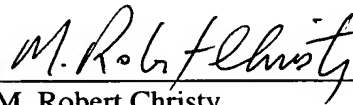
The Examiner has rejected original Claim 17 under 35 U.S.C. 103(a) as being unpatentable over Betso in view of Hara (US 5,424,020). Original Claim 17 of the present invention is the method of amended Claim 1 used to fabricate a golf cart underbody. Hara discloses a method for producing a molded article of a fiber reinforced thermoplastic resin. Hara further discloses that the reinforcing fiber is a chopped fiber of from 1 to 50 micron (col.4, lines 54 to 68). Further, the only examples of molded article in Hara are automobile parts such as exterior panels, structural parts and battery trays, and building materials such as access floors. The Examiner's argument that a golf cart is similar to a automobile therefore one can substitute Applicant's golf cart underbody for Hara's automobile parts such as exterior panels, structural parts and battery trays is completely unjustified. Golf carts are not cars; golf cart underbodies are not the same as automobile exterior panels, structural parts and battery trays.

Neither Betso nor Hara teach or suggest Applicant's (1) fiber reinforced thermoplastic composition made from continuous fibers, (2) the use of a masterbatch comprising an elastomer, or (3) golf cart underbodies. Applicant asserts it is impossible to combine Betso and Hara to arrive at Applicant's present invention. Applicant further asserts that original Claim 17 depending from amended Claim 1 is unobvious and patentable over Betso in view of Hara.

CONCLUSIONS

In view of the preceding amendments and remarks, it is believed that all grounds of rejection have been fully traversed and Applicant's amended Claims 1 and 13 and original Claims 2, 3, 6 to 12, and 15 to 17 are patentable in full. Further, Applicant believes that amended Claim 1 is novel and patentable and that withdrawn Claims 4 and 5 be reconsidered and allowed. Accordingly, their reconsideration and allowance at the earliest possible convenience is courteously solicited.

Respectfully submitted,



M. Robert Christy
Registration No. 42,414
Phone: 989-636-0413

P. O. Box 1967
Midland, MI 48641-1967

MRC/mlv